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ABSTRACT

Perceptions of schooling among Chicano students were compared in 1974 with those of whites, blacks, and Asians in San Francisco comprehensive and general high schools. The primary data source was a questionnaire administered to 770 students in 8 schools. Some common beliefs about the educational values of Chicano students and their parents were explored and shown to be myths. Chicano students cared about school and were not alienated from it. They saw a close link between their schooling and their future occupations. They also reported that their parents and others who mattered to them considered education important. But Chicano performance in high school did not fit this image of students who cared deeply about schooling. Chicanos entered high school relatively low in verbal and mathematical skills. Warmth and Friendliness were used by teachers as mechanisms to control these low-achieving students. Teachers also gave some praise to students who were lowest in academic performance. Teachers' failure to set challenging standards led Chicano students to a false view of their own level of effort and skill. The students' faulty self-assessment helped perpetuate a pattern of institutional discrimination. The warm and positive acts of teachers led to the preservation of the existing structure of inequality. (Author/NQ)

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FACTORS PERPETUATING THE LOW ACADEMIC STATUS OF CHICANO HIGH SCHOOL STUDENTS

Celestino Fernández, Rubén W. Espinosa,
and Sanford M. Dornbusch

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Introductory Statement

The Center's mission is to improve teaching in American schools. Its work is carried out through three research and development programs--Teaching Effectiveness, The Environment for Teaching, and Teaching and Linguistic Pluralism--and a technical assistance program, the Stanford Urban/Rural Leadership Training Institute. A program of Exploratory and Related Studies includes smaller studies not included in the major programs. The ERIC Clearinghouse on Information Resources is also a part of the Center.

The research reported here was conducted in association with the studies of evaluation and authority within the Environment for Teaching Program.

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This has been a successful research project, and its success has been a product of remarkable cooperation between the San Francisco Unified School District and the Vocational Education Research Branch of the California Department of Education. Bryant Lane, Director of Career and Occupational Preparation; Bruno Zachary, Staff Assistant; and Walter Phillips, Director of Pupil Personnel Services, all of the San Francisco Unified School District, guided us at every step so that our academic backgrounds and knowledge would not lead us away from the practical problems of vocational educators and counselors. James Crandall from the Vocational Education Branch both prodded and criticized so that we would come up with practical results that were worthy of dissemination. And Harold Weeks, Research Director of the San Francisco Unified School District, criticized our questionnaire and kept high standards for evidence. His final accolade thus meant much to us.

We developed a mechanism for continuing feedback and evaluation in our Research Advisory Committee. The people named above joined Idaree Westbrook of the Far West Laboratory for Educational Research and Development and John Rossi of the O'Connell School of Technology in a monthly meeting that continually forced rethinking and reanalysis to answer their questions.

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Abstract

Perceptions of schooling among Chicano students were compared with those of Other Whites, Blacks, and Asians in San Francisco comprehensive and general high schools. The primary source of data was a questionnaire administered to a total of 770 students in eight schools. Some common beliefs about the educational values of Chicano students and their parents were explored and shown to be myths. Chicano students cared about school and were not alienated from it. They saw a close link between their schooling and their future occupations. They also reported that their parents and others who mattered to them considered education important. But Chicano performance in high school did not fit this image of students who cared deeply about schooling. Chicanos entered high school relatively low in verbal and mathematical skills. Warmth and friendliness were used by teachers as mechanisms to control these low-achieving students. Teachers also gave more praise to students who were lowest in academic performance.

Teachers' failure to set challenging standards led Chicano students to a false view of their own level of effort and skill. Their faulty self-assessment helped perpetuate a pattern of institutional discrimination. The warm and positive acts of teachers led to the preservation of the existing structure of inequality.

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FACTORS PERPETUATING THE LOW ACADEMIC STATUS OF CHICANO HIGH SCHOOL STUDENTS

Celestino Fernández, Rubén W. Espinosa, and Sanford M. Dornbusch

Introduction

The focus of this study is twofold: (1) on the differences and similarities between Spanish-surname students and students from other ethnic groups with respect to academic effort and achievement, and (2) on the factors that perpetuate the low academic status of Chicano high school students. We used three other ethnic groups for comparison: Other Whites (N = 184), Blacks (N = 209), and Asian Americans (N = 183). Within our Spanish-surname group (N = 133), there were Latinos as well as Chicanos. Like many other researchers doing research on Chicanos, we had to use a Spanish-surname category as a substitute for Chicano identification, since we were not allowed to ask students questions about ethnicity. Our results, then, cannot be specifically linked to Chicanos. We believe that the results and implications are applicable to all Spanish-surname populations. We hope other researchers will test our findings in samples that are predominantly Chicano or predominantly Latino. In the text we refer to the Spanish-surname part of our sample as Chicanos.

Even though this paper focuses on Spanish-surname students, the principles we test are part of a general theory of evaluation and authority that is applicable to most participants in most organizations, including students in schools (Dornbusch and Scott, 1975). We base our approach on the assumption that ethnic differences are a product of general principles applied to specific populations.

Celestino Fernández is a Research Assistant at the Boys Town Center for the Study of Youth Development at Stanford University. Rubén Espinosa is a Research Assistant at SCRDT. Sanford Dornbusch is Professor of Sociology at Stanford University and a Research and Development Associate of SCRDT. Portions of this paper appeared in a different form in R. W. Espinosa, C. Fernández, and S. M. Dornbusch, "Factors Affecting Chicano Effort and Achievement in High School," Atisbos, Stanford University, Summer 1975.

Our most general principle is that if an activity is of high importance to a person, the person will expend a high level of effort on it (Dornbusch and Scott, 1975). This seems obvious, but our analysis will show that the relationship between importance and effort is complex. We hypothesize that if a student regards learning or grades as important, he or she will put out more effort in school. Our results showed that the importance of schooling was high for Chicanos and that Chicanos assessed their effort as high. But a less subjective "effort-engagement" scale, using such items as time spent on homework and cutting of classes, showed that Chicanos were relatively low on effort. This paper seeks to understand and explain this apparent discrepancy.

We begin by showing that Chicano students considered schooling important. Significant others, such as parents, were perceived as caring about school, and this perception raised the importance of learning and grades to students. Similarly, students believed that school was related to entry into future occupations and future work performance, and this perceived articulation of school and work led to high importance of schooling for Chicano students. Thus, although we found ethnic differences in our measures of effort-engagement and of school achievement, Chicanos' low scores on these measures were not explained by ethnic differences in importance of schooling or in alienation. We conclude that the low academic standards applied by teachers were a major source of Chicano students' erroneous assessment of their own level of effort and achievement. Chicanos had higher academic self-concepts and higher self-assessment than one would expect on the basis of more objective measures of skill and effort. Their misperceptions were a product of a faulty evaluation system, which substituted teacher warmth and praise for challenging academic standards.

Data Base

The major source of data for this paper was a questionnaire administered to a 5 percent random sample of students in eight comprehensive and academic high schools in San Francisco in 1974. There was great diversity among these eight comprehensive high schools in academic achievement and in certain concentrations of ethnic groups. Our sample

size for students in the general and academic high schools of San Francisco was 770 students.

For purposes of comparison, we occasionally refer to two other samples. One consisted of 442 students from the one vocational school of technology in San Francisco. The other consisted of 664 students drawn from one school in each of three middle-class suburban school districts. There were few students from ethnic minorities in these three schools. These samples are not central to this paper.

To get an unbiased sample of students in San Francisco comprehensive and academic high schools and to collect more reliable data, we paid $2 to each student who filled out our lengthy questionnaire. This payment of money helped us gain the participation of those students who were least satisfied with school and schooling. A few minority students remained distrustful of the entire enterprise, although the administrators of the questionnaire, many of whom were themselves minority students, helped reduce that distrust. Many students had severe reading problems, so we had to administer the questionnaire in very small groups. Sometimes we had to read the whole questionnaire to the students, and sometimes it was necessary to translate parts into Spanish.

The San Francisco school district cooperated by providing background data from their records. These data gave us more objective information to relate to student perceptions and also provided important control variables, such as ethnicity and level of achievement on standardized tests.

We have some interesting and often sad findings to report concerning the situation in which Chicano students find themselves. Our major findings and theoretical implications are reported in this paper. A more extensive description of the theoretical framework, data base, and analysis can be found in Dornbusch et al. (1974). The overarching theory from which this project derives is in Dornbusch and Scott (1975). The main empirical findings from Chicanos are reported in Espinosa et al. (1975), but that paper provides less linkage between the results and the central theory.

Methodology

Four kinds of data analyses were performed. In most of this paper we report frequency distributions and qualitative measures of correlation, often controlling for ethnicity, sex, and scores on achievement tests. We try to simplify the presentation of correlation between variables by using a single nonparametric measure, gamma (Goodman and Kruskal, 1954). A nonparametric measure has the advantage of making no assumptions about the distribution of the variables being studied.

Gamma may be interpreted as a proportionate-reduction-in-error (Costner, 1965). The absolute value of gamma represents the proportionate-reduction-in-error in ranking pairs of cases on the second variable when one shifts from the strategy of random assignment to a strategy based upon knowledge of their order on the first variable, ignoring all tied pairs. The greater the strength of the relationship between the two variables, the larger the absolute value of gamma.

Gamma may assume values from -1.00 to +1.00. If we find a negative gamma, it means that for untied pairs, the order on one variable is inversely related to the order on the other. A high value on one variable would be more likely to be found with a low value on the other variable. A positive gamma means that, for all untied pairs, the order on one variable is similar to the order on the other variable. The magnitude of gamma, whether positive or negative, indicates the amount that errors in predicting the order of cases on the second variable are reduced by knowledge of their order on the first variable.

We will report the results of some factor analyses and multiple regression analyses. These more complex methods will not be reported in detail, since they merely reinforce results found by less complicated techniques.

From our questionnaire we developed a number of Guttman scales to represent key theoretical variables. To form a Guttman scale from a series of questions, we required at least a .9 level of reproducibility and at least a .6 level of scalability. Our efforts produced acceptable Guttman scales, indicating that each scale measured one and only one

dimension. The major Guttman scales used throughout the study were: self-assessment of effort, effort-engagement, forgetting school materials, articulation between each school subject and later occupations, alienation, and diffuse responsiveness of teachers. Every scale was based on student perceptions.

Since student effort was one of our key theoretical variables, we created a number of measures of it which we were able to combine into three Guttman scales. One was a very subjective scale in which the student assessed how much effort he or she was exerting. This scale we labeled "self-assessment of effort." The other two scales were less subjective, even though they too were created from self-reports. These we labeled scales of "effort-engagement" and "forgetting school materials." The latter scale used the frequency with which the student forgot to bring homework, books, pens, pencils, and paper to class. It was primarily used to assess the validity of other measures, for it was not subject-specific. The effort-engagement scale used data on number of hours spent on homework per week, number of classes cut each week, how often the student daydreamed, and how often the student really paid attention in class. These diverse measures of effort gave us data that were related but not identical, assured us that each scale measured a single dimension of effort, and gave us confidence that we had valid and reliable measures on this important set of variables.

In almost all our analyses, we examined data within each subject, asking specifically about the last course in that subject. The four subjects used were: Mathematics, English, Social Studies, and Vocational/Business courses.

A Cautionary Note on Myths and Misinterpretations

Many research studies tend to give the impression that different ethnic groups can be lumped together and viewed as "minority groups." Specifically, Spanish-surname and Black groups have often been treated as a single homogeneous population of "deprived" persons. Our findings

suggest both similarities and major differences among the four ethnic populations we studied. It is also true that within each ethnic group there are a number of similarities and differences between males and females.

For example, Chicano and Black students are alike in that they receive a large proportion of low grades, D's and F's, but there are substantial differences between these groups (the proportion of low grades is higher for Blacks); there are also differences within each group (Spanish-surname females have a lower proportion of low grades than do Spanish-surname males). It is important that the reader keep these three ideas in mind:

1. that there are differences and similarities among ethnic groups;
2. that there are sex-related differences and similarities within each ethnic group; and
3. that averages for groups cannot be viewed as statements about individuals in each group, for the variability within each ethnic group is great.

Many educators, researchers, and policy makers have beliefs about the causes of Chicanos' poor academic achievement that are, according to our data, myths. Some of these myths are:

1. Chicano students do not see a link between school and their occupational futures.
2. Chicano parents do not believe education is important.
3. Chicano achievement and effort are relatively low because Chicano students do not believe education is important.
4. Chicanos are alienated from school.
5. Chicanos who are doing poorly in school do not think education is important.

The analyses that follow show why these beliefs are false.

Articulation Between School and Work

"Articulation" refers to the link perceived between a given situation and other situations. We use the term to refer to the degree of linkage

that students perceive between schooling and their occupational goals. We obtained a measure of articulation for each of four subjects: Math, English, Social Studies, and Vocational/Business. We asked three questions, which we combined into a single scale. The questions were "How important is learning (each subject) in helping you enter into the kind of work you expect to be doing for most of your life?," "How important is learning (each subject) in helping you be good at the kind of work you expect to be doing for most of your life?," and "How important are grades (in each subject) in helping you enter into the kind of work you expect to be doing for most of your life?"

We expected to find that suudents who saw a link between schooling and their future occupations would consider schoolwork important. We found this relationship between articulation and the importance of schoolwork (both learning and grades) for each academic subject and ethnic group.

Chicanos showed the same powerful relationship of articulation to the importance of schoolwork as other groups and were not particularly low in perceiving articulation for the various subjects. Indeed, Other Whites were the ethnic group who saw least articulation between schoolwork and future careers.

Table 1 shows relationships between articulation and the importance of schoolwork for Chicano students. They are comparable to relationships found for all groups combined. Factor analyses confirmed the close relationship between articulation and the importance of learning and of grades. An orthogonal varimax rotation consistently placed all three variables in the same factor.

Thus, Chicano students saw a rather close link (gamma = .48 to .93) between schoolwork and their future jobs, and this perceived articulation was associated with the importance of schoolwork to them. So we must search elsewhere for an explanation of their lower relative achievement and effort in school.

TABLE 1

Relationship Between Perceived Articulation and the Importance of Learning and Grades for Chicano Students, by Sex and by Subject (in gammas)

Subject	Sex	Articulation & Learning	(N)	Articulation & Grades	(N)
Math	M	.48	(64)	.72	(64)
	F	.77	(64)	.68	(64)
English	M	.59	(61)	.69	(62)
	F	.93	(63)	.74	(62)
Social Studies	M	.78	(60)	.67	(61)
	F	.79	(59)	.55	(58)
Vocational/ Business	M	.59	(50)	.45	(50)
	F	.54	(54)	.65	(54)

Social Influence on Students

Some people believe that a lack of concern about academic work by significant others is a cause of relatively low achievement and effort by Chicanos. Madsen claimed that " Mexican-American parents often see little value in any type of academic success for their children" (quoted in Lopez, 1973, p. 73). But this explanation also is disproved by our data.

"Social influence" is the impact that people who matter to the student have on the student's perceptions and behavior. Potential significant others include mother, father, counselor, and friends. We investigated the impact of the perceived beliefs of these people on the students' own beliefs and behavior. We measured the beliefs of significant others by asking students such questions as "How important does your mother (or the woman taking her place) think learning the subject is in these classes: Math, English, Social Studies, and Vocational/ Business?" We also asked, "How important is your working hard at your

schoolwork to these people: teachers, counselors, family, and friends?"

We do not know the extent to which students' perceptions of the beliefs of significant others accurately reflect actual beliefs, but we found that the beliefs which students attributed to others certainly were related to student beliefs and behavior: the perceived opinions of significant others were positively correlated with the perceived importance of learning and of grades.

To go further, we predicted that students' beliefs would reflect the beliefs of people who were most important to them. To test this, we examined students' perceptions of the importance attributed to learning and grades by others--mother, father, and friends. We controlled for the importance of each of these people to the student, as measured by student responses to the question "How important to you is having these people like you?" We predicted that those people who were most important would have the greatest influence on student beliefs, and that is what we found. The lower the students rated the others in importance, the lower the relationship between the others' beliefs about the importance of learning and grades and the students' beliefs. Although only a few students said that their parents were less than moderately important to them, even here the correlation between student and parent beliefs when students reported their parents as extremely or very important was significantly different from the correlation when students reported their parents as only moderately important. The relationships typically moved from .50 and higher to about .20. This same pattern held for the relationship between students' beliefs and their friends' beliefs, from about .35 when friends were important to between -.10 and .20 when friends were said to be "not at all important." From these findings it seems clear that the social influence theory is correct in stating that students' beliefs are more likely to be influenced by the beliefs of people who are important to them (i.e., significant others) than by the beliefs of people who are not.

We can show that Chicano students believed that their mothers and fathers consider it important to learn Math and English. Chicano

students did not see their parents as unconcerned about learning or grades. Students from all ethnic groups thought their parents considered learning Math and English important, and the other subjects somewhat less important; and Chicano students were equally high in their estimation of parental concern. For example, 89 percent of Chicano males believed their mother considered learning English to be very or extremely important, and 94 percent of Chicanas held the same belief. For their father, the respective proportions were .92 and .88. In all subjects, for both learning and grades, students' beliefs about their parents' views of the importance of schooling were equally high for San Francisco and suburban students. Social influence from parents does not explain group differences between Chicanos and other groups in school performance.

There may be ethnic differences in parental behaviors and involvement in school activities. Our findings should not be stretched to imply that there are no ethnic differences in parental behavior. But parental concern about education is not a major determining factor.

Students in each ethnic group also perceived counselors as considering learning and grades important. Friends were thought to regard schooling as less important. There were ethnic differences, but they did not explain lower school performance by Chicanos. Indeed, higher proportions of Chicanos, Asian Americans, and Blacks saw their friends as emphasizing the importance of learning and of grades than Other Whites. Table 2 illustrates the ethnic differences in perception of peers.

TABLE 2

Proportion of Each Group Perceiving Friends as Considering Learning Math and English Very or Extremely Important, by Sex and Ethnicity

Subject	Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
Math	M	.28	(66)	.21	(99)	.29	(90)	.47	(90)
	F	.33	(66)	.23	(108)	.45	(90)	.50	(92)
English	M	.31	(64)	.19	(99)	.21	(90)	.35	(90)
	F	.40	(67)	.32	(108)	.38	(89)	.42	(92)

Articulation and Social Influence

We have shown that both articulation and social influence were highly related to the importance the students attributed to grades and learning. We were concerned about whether they were independent factors, since significant others might influence students by convincing them that school tasks are important for the future. If this were the case, articulation and social influence would be referring to the same process, and one would have to be eliminated from our scheme. Our analyses could not look at Chicanos separately, and we were forced to combine all ethnic groups, because the complex tables we developed showing interrelationships could not simultaneously examine ethnicity.

We tested articulation as an independent force by relating perceived articulation to perceived importance of learning and grades while controlling for significant others' beliefs about the importance of learning and grades. The relationship between articulation and importance remained very strong. With the controls, we generated a large number of tables relating articulation and importance of learning and grades. The tables were based on a varying number of cases. The relationships ranged from a few gammas around .30 to high gammas near .90. The mean gamma was over .60 for those tables which were based on 100 or more cases. We conclude, then, that articulation and social influence are separable processes, and that articulation had an especially powerful impact on student beliefs about the importance of schooling.

We also tested social influence as an independent force by relating it to students' perception of the importance of both learning and grades while controlling for articulation. We found, as expected, that the overall relationship between social influence and the importance of learning and grades remained fairly high, although the relationship was reduced in many cases by controlling for articulation.

These findings, that social influence and articulation were independent predictors of the importance students place on schooling, were supported by multiple regression analyses. These analyses used different combinations of regressors and used different outcome variables, shifting from learning

to grades and varying the ethnic group for whom importance of schooling was to be predicted. In general, favorable attitudes toward schooling of parents, peers, and counselors were often positively associated with the importance of schooling to students. This pattern was also found for the Chicano students. Articulation was even more powerful as an independent regressor when the impact of other variables was taken into account. Not only was articulation the single most powerful predictor of the importance of schooling, but it was statistically significant 10 times out of 12 when regression analyses were done among the small samples of Chicano males and Chicanas.

Thus, the regression analyses reemphasize the power of perceived articulation to influence the image of schooling. For the vast majority of students, including Chicanos, the greater the link that students perceived between schoolwork and their future jobs, the more important they considered schoolwork. This goes beyond mere social influence, which predicts that students think schoolwork is important to the extent that they perceive that significant other people believe it is important. The finding that both articulation and social influence were independent forces affecting the importance of schoolwork to high school students is good news to those who are interested in increasing student interest and performance in school. While increasing interest and performance through social influence requires going outside school limits to affect the perception and behavior of others, presenting subject matter in a manner that has a clear bearing on occupational futures is a feasible task that can be accomplished within each classroom. Thus, our findings support the idea that education for careers is broadly applicable to secondary school students of every type, not just to specific ethnic groups or to low-achieving students. We must, however, search further for understanding the level of Chicano school performance.

The Importance of Learning and Grades

One would expect, given our data on articulation and social influence, that Chicano students would not place low importance on schoolwork. V. D. Stokes wrote in 1970, "It is commonly accepted that the Mexican-American

places little value in education" (quoted in Lopez, 1973, p. 28). It may be commonly accepted, but it appears to be untrue.

We found little evidence that Chicano students placed low importance on learning or on grades in any of the four subjects. Indeed, differences among ethnic groups showed a tendency for Other Whites to consider school subjects less important and for Blacks to consider them more important (see Table 3). There was no evidence that Chicano students cared less about learning or grades than others; indeed, they were almost indistinguishable from Asian students, the group whose achievement level was highest in the school system.

TABLE 3

Proportion of Students Reporting It Extremely or Very Important to Learn each Subject, by Sex and Ethnicity

Subject	Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
Math	M	.75	(64)	.70	(100)	.81	(88)	.80	(90)
	F	.73	(67)	.62	(108)	.92	(90)	.71	(92)
English	M	.71	(63)	.58	(100)	.72	(90)	.68	(90)
	F	.78	(68)	.73	(108)	.80	(92)	.77	(92)
Social Studies	M	.52	(60)	.33	(100)	.54	(89)	.41	(88)
	F	.46	(65)	.48	(109)	.61	(92)	.46	(90)

Some researchers and policy makers believe that the reason for ethnic differences in school performance (achievement, grades, dropping out) is the failure of minority parents and students to see education as important (Deutsch, 1970; Passow, 1970; Sewell, 1971). Government projects continue to be directed toward convincing Chicano parents and students that education is very important. Our data strongly suggest that the funds, time and energy directed at changing parental and student values are not necessary. The bases for relatively low Chicano performance lie elsewhere.

Alienation

Cordova has written that the "inadequate assimilation of Spanish-American students into the dominant society, and specifically into the dominant society's middle-class-oriented school, contributes to their educational alienation" (1970, p. 16). In the light of Stinchcombe's work on alienation, were Chicanos to be more alienated, this might explain their relatively low school performance. But, by our measures of alienation, they were not more alienated than other students.

Our alienation scale was based on the previous work of Wallin (1970) and Spellman (1971). We asked four questions: How often (1) do you ever feel that you hate school? (2) do you have a good time at school? (3) do you ever wish you never had to go to school? (4) are there things about school that you like very much?

Whether one examines the response to individual questions or the values on the Guttman scale, Chicano students do not appear more alienated. In general, most students in every group were low in alienation; suburban students were as alienated as students in the central city, and Chicanos were certainly not high in alienation. Indeed, if there is a difference in alienation for Chicanos, it appears to be the lowest ethnic group in its level of alienation, although there is no clear pattern. Alienation of Chicanos does not explain their school performance.

Ethnic Differences in Academic Achievement

We believe that the skill level of Chicano students prior to entering high school is a crucial variable directly and indirectly affecting their later performance in high school. If a Chicano student lacks basic skills when entering high school, he or she may exert less academic effort because the work assigned will be either too difficult or, surprisingly, as we will explain, too easy. We believe these ethnic differences in effort perpetuate the existing low levels of achievement, and we will show that teacher and school standards for academic performance by Chicanos help create these differences in effort.

We found substantial ethnic differences on standardized achievement tests. We recognize that scores on verbal and math achievement tests reflect basic skills, not intelligence or biological capacity. Such tests have deficiencies, but they do predict school performance in English-language schools.

Tables 4 through 7 present the proportion of students in eighth grade (before high school) and tenth grade (in high school) whose scores were in the approximate bottom one-fifth of all students. In the eighth grade, Chicano and especially Black groups had a larger proportion of students with poor verbal and math skills. Asian and Other White groups had a much lower proportion of students in the bottom fifth. The lack of skills is an obvious hinderance to the performance of many Chicano students in high school, and it provides even more of a problem to Black students.

TABLE 4

Proportion of Eighth-Grade Students Scoring Below the 5.2 Grade Level in Math Achievement, by Ethnicity and Sex

Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
M	.18	(33)	.06	(64)	.69	(52)	.04	(56)
F	.18	(33)	.01	(71)	.38	(53)	.02	(61)

TABLE 5

Proportion of Tenth-Grade Students Scoring Below the 6.6 Grade Level in Math Achievement, by Ethnicity and Sex

Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
M	.24	(25)	.07	(55)	.55	(47)	.00	(48)
F	.10	(29)	.08	(60)	.59	(44)	.02	(55)

TABLE 6

Proportion of Eighth-Grade Students Scoring Below Fifth-Grade Level in Verbal Achievement, by Ethnicity and Sex

Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
M	.29	(34)	.05	(53)	.70	(53)	.09	(55)
F	.15	(34)	.00	(69)	.40	(55)	.05	(62)

TABLE 7

Proportion of Tenth-Grade Students Scoring Below Sixth-Grade Level in Verbal Achievement, by Ethnicity and Sex

Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
M	.23	(53)	.06	(80)	.54	(61)	.17	(83)
F	.29	(48)	.04	(79)	.37	(68)	14	(88)

As we warned earlier, Chicano and Black students should not be treated as a homogeneous group of underprivileged minority students. The data on achievement test scores illustrates the differences between the two ethnic groups. For example, in the tenth grade, 24 percent of Chicano males performed below the 6.0 grade level in math. This is about one-fourth and clearly not low, but far from the 55 percent of Black males who did as poorly. This difference was even stronger between Chicanas and Black females.

The ranking of groups stayed the same from eighth grade to tenth grade. For all ethnic groups combined, the correlation between eighth-grade math achievement scores and tenth-grade math achievement scores was very high, .87. The gammas within each ethnic group were .75 for Chicanos, .83 for Other Whites, .54 for Blacks, and .90 for Asians. The strong relationships between earlier and later scores suggest that

in most cases individual performances in high school are predictable from achievement in eighth grade. Thus, it is not surprising that all ethnic groups have the same relative standing in math in both eighth grade and tenth grade achievement.

For all ethnic groups combined, the correlation between eighth-grade and high school verbal achievement was also very high, .92. Within each ethnic group, the gammas were .85 for Chicanos, .91 for Other Whites, .88 for Blacks, and .88 for Asians. For verbal achievement, even more than for math, high school achievement is related to eighth-grade achievement.

We divided the Chicano students into five groups according to their achievement scores (N = 68) in order to see whether their ranking persisted. Persistence of achievement scores means that students who start high school at a disadvantage usually do not overcome that disadvantage. Among eleven Chicano readers who in eighth-grade tests were in the lowest group, eight remained in the bottom group in tenth grade, and three moved up slightly to the next highest group. None of the lowest eighth-grade readers moved to the top three groups in tenth-grade reading.

Only four Chicanos were in the top reading group in eighth grade. Three remained in the top group, and one moved down to the group just below the top. Again, no students moved more than one group from the extreme.

For math, the same general pattern of relative stability was exhibited by Chicanos. Blacks and Chicanos tended to be lower than other groups in both math and verbal achievement before entrance to high school, and that relatively low achievement persisted in high school. We will now focus on processes that help explain the perpetuation of these ethnic differences in achievement.

Academic Effort

We have set the stage for our analysis of why and how the relatively low level of academic achievement for Chicanos is perpetuated in high

school. Now we can turn to a key set of scales, those which measure different conceptions of academic effort.

It is unusual to emphasize student effort as a major theoretical concept. We do so because we view schools as organizations and students are participants in those organizations. Effort by participants, and the control of their effort, are key elements in our theory of evaluation and authority (Dornbusch and Scott, 1975). Student effort is problematic, not something to be taken for granted. We will analyze in this paper the complex processes by which effort is expended and controlled.

For each academic subject, we developed a subjective scale in which each student rated his or her own level of effort. This we called "self-assessment of effort." The less subjective "effort-engagement" scale used self-reported data on homework, cutting, daydreaming, and paying attention. Other measures of effort, such as school records of unexcused absences and student reports on forgetting school materials, were not subject-specific. They were primarily used to assess the relative validity of effort-engagement and self-assessment of effort. Data on unexcused absences and the forgetting of school materials were both more highly correlated with effort-engagement than with self-assessment of effort.

Our scale of self-assessment of effort was completely subjective. As Table 8 indicates, combining all subjects, Chicano students saw themselves exerting about as much effort as did Asians, the group with the highest scores on achievement tests. Surprisingly, reversing the order for achievement, Blacks were the highest group in self-assessment of effort. We must explain how students who are, as a group, low in achievement can believe that they are high in academic effort.

TABLE 8

Proportion of Students High on the Self-Assessment of Effort Scale, by Subject, Sex, and Ethnicity

Subject	Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
Math	M	.48	(63)	.30	(100)	.46	(90)	.44	(90)
	F	.37	(63)	.37	(104)	.56	(90)	.52	(92)
English	M	.37	(63)	.29	(100)	.35	(89)	.38	(90)
	F	.40	(65)	.48	(104)	.63	(91)	.48	(92)
Social Studies	M	.36	(61)	.24	(100)	.37	(87)	.33	(88)
	F	.37	(62)	.47	(105)	.44	(91)	.47	(90)
Vocational/ Business	M	.48	(52)	.37	(68)	.47	(67)	.31	(59)
	F	.40	(58)	.38	(74)	.57	(76)	.43	(70)

Table 9 presents data on effort-engagement, our less subjective measure. The highest group in effort-engagement was the Asians, followed in order by Other Whites, Chicanos, and Blacks.

TABLE 9

Proportion of Students High on the Effort-Engagement Scale, by Subject, Sex, and Ethnicity

Subject	Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
Math	M	.27	(63)	.42	(98)	.21	(86)	.57	(90)
	F	.29	(62)	.36	(102)	.23	(86)	.61	(92)
English	M	.23	(64)	.26	(97)	.14	(87)	.54	(90)
	F	.33	(66)	.39	(103)	.20	(90)	.58	(91)
Social Studies	M	.26	(62)	.26	(97)	.13	(85)	.47	(88)
	F	.36	(61)	.41	(100)	.23	(83)	.42	(90)
Vocational/ Business	M	.29	(52)	.25	(66)	.18	(57)	.37	(23)
	F	.33	(51)	.28	(71)	.35	(72)	.57	(71)

Chicano students were not putting out as much effort, by this measure, as Other Whites, and far less effort than Asians. The two lowest groups in effort-engagement, Chicanos and Blacks, were also the groups who performed more poorly on the standard achievement tests. (Chicano students, it should be noted, were typically closer to Other White students in effort-engagement than to Black students, again pointing up the inappropriateness of treating minorities as a single homogeneous group.)

We will illustrate differences in levels of effort-engagement by examining two components of that scale, cutting and homework. Our data showed substantial differences among ethnic groups on these two components. Chicanos who were like Asian students in their self-assessment of effort reported cutting more and spending less time on homework than did Other White and Asian students.

When we examined students' reports on how often they cut class, we found enormous differences between suburban schools and city schools and among ethnic groups. In the suburbs, between 4 and 10 percent of the students reported that they cut a particular subject either once or twice a week or almost daily. Asian students in San Francisco reported cutting as infrequently as did suburban students, but Chicanos, Blacks, and Other Whites were markedly higher. Almost a third of Chicano male students, for example, reported cutting Math, English, and Social Studies classes at least once a week. The Black male students reported the highest frequency of cutting, followed by Chicano, Other White, and Asian students. For females, there was little difference among ethnic groups, save that Asians were extremely low in reported cutting.

As a check on these reports of ethnic differences in cutting, we examined data on unexcused absences obtained from school records. Table 10 presents these data. The ethnic groups are in the same rank order as for the students' reports of cutting. Blacks had the highest proportion of students with 10 or more unexcused absences in the preceding semester, followed by Chicano, Other White, and Asian students. These data buttress the validity of the cutting component of the effort-engagement scale.

TABLE 10

Proportion of Students Having 10 or More Unexcused Absences during the Previous Semester, by Sex and Ethnicity

Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
M	.36	(62)	.20	(97)	..47	(82)	.09	(89)
F	.21	(64)	.14	(102)	.31	(86)	.07	(89)

Another component of effort-engagement is homework. For time spent on homework, the difference between suburban and San Francisco students was negligible when all ethnic groups in San Francisco were combined. Yet, once again, the heterogeneous groups in the city differed greatly in their expenditure of effort, when homework was taken as the measure.

Table 11 gives the proportion of students in each ethnic group who reported spending two hours or more per week doing homework in Math and English. Even without reporting the figures for every subject, it is obvious that ethnic differences are in the same direction as for cutting. Asians were spending the most time on homework and were cutting the least, Blacks were spending the least time on homework and were cutting the most. A higher proportion of Chicano students were spending two or more hours per week on homework than Black students, but the Chicano proportion was lower than for Other White students and very much lower than for Asian students.

TABLE 11

Proportion of Students Spending Two or More Hours per Week on Homework, by Subject, Sex, and Ethnicity

Subject	Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
Math	M	.33	(64)	.45	(99)	.26	(90)	.59	(90)
	F	.29	(65)	.42	(104)	.30	(90)	.61	(92)
English	M	.30	(64)	.32	(97)	.17	(89)	.56	(90)
	F	.36	(66)	.48	(103)	.29	(90)	.63	(92)

As we saw earlier by looking at averages, Chicanos as well as the other ethnic groups in San Francisco all reported similar high scores on the importance of schooling and on the social influence and perceived articulation that lead to learning and grades being important. However, on our less subjective measures of effort, the Chicano and Black students had, on the average, consistently low scores in effort-engagement. Thus we find Chicano and Black students believing that school is important and yet putting out less effort. To repeat, these Chicano students did not tell us that school was unimportant. Quite the contrary. They told us that school was important, that their parents supported and cared about school, and that they saw a link between school and their occupational futures. Yet they were not putting out effort in school to work toward that future. Most important, according to our measure of self-assessment of effort, many Chicanos doing very badly in school don't know it and believe that they are trying very hard.

Importance and Effort

The link between importance and effort in our theory proved to be very complex. Combining data from all kinds of students, we found that the relationships between importance and the two different measures of effort, self-assessment of effort and effort-engagement, were in the same positive direction but differed greatly in magnitude. The gamma

relating perceived importance of learning a subject to the student's self-assessment of effort was .52 for Math, .44 for English, .46 for Social Studies, and .43 for Vocational/Business classes. The gammas relating perceived importance of learning to the scale of effort-engagement were lower: .27 for Math, .33 for English, .30 for Social Studies, and .20 for Vocational/Business classes. Thus, students believe they are working on each task as much as would be appropriate considering the importance of the task to them, but there is a weaker relationship between importance and the less subjective measure, effort-engagement.

Controlling for ethnicity produced the same strong relation of importance of schooling to self-assessment of effort within each ethnic group. The students believed they were behaving rationally, but effort-engagement scores did not support this belief. The data in Table 12 illustrate this phenomenon for Chicano students. Within the small samples of Chicanos and Chicanas, the patterns tend to show importance closer to self-assessment of effort than to effort-engagement.

TABLE 12

Relationship Between Importance of Learning and Self-Assessment of Effort and Effort-Engagement for Chicanos, by Subject and Sex (in gammas)

Subject	Sex	Self-Assessment of Effort	(N)	Effort-Engagement	(N)
Math	M	.46	(63)	.29	(63)
	F	.43	(63)	.41	(62)
English	M	.30	(62)	.27	(63)
	F	.35	(65)	.24	(66)
Social Studies	M	.34	(59)	.41	(60)
	F	.45	(61)	.20	(61)
Vocational/ Business	M	.46	(51)	.47	(51)
	F	.49	(57)	.26	(51)

The results of this pattern of self-assessment are illustrated in Figures 1 and 2. Students who expend more effort by the less subjective measure, effort-engagement, tend to have higher levels of achievement In the highest groups by math or verbal achievement in tenth grade we find a much higher proportion of students high in effort-engagement. But for self-assessment there is clearly not a positive relationship to levels of achievement. Indeed, there appears to be a tendency for low-achieving students, more than higher-achieving students, to assess their level of effort as high.

Academic Standards

Massey (1975) found within our sample a pattern of distortion with respect to self-concept that is related to this study. She reports higher-than-expected self-concept for students low in achievement, echoing the results of Rosenberg (1965), Coleman et al. (1966), and Rosenberg and Simmons (1971). Her analyses of the bases for these high self-concepts are consistent with the emphasis we place upon classroom environment and academic standards.

How is it possible for Chicano students, and students in other ethnic groups, to continue to kid themselves, not just on their level of ability, but on their level of effort? A mistaken view of their current level of effort is a barrier to reaching their occupational goals. Under what conditions is this distortion likely? Our findings suggest that part of the answer lies in the academic standards and classroom environment found in the schools.

Different standards are appropriate for different groups that begin high school at different levels of skill. As we noted earlier, Chicano and Black students entered high school with a lack of reading and math preparation. We are concerned not that different standards are used, but that the diverse standards used in high school are not challenging. We will show that an appropriate balance in which schoolwork is neither too difficult nor too easy and moves the student toward increasingly higher levels of achievement is not reached.

Fig. 1. Percentage of all students high on effort-engagement and self-assessment of effort at different levels of tenth-grade math achievement.

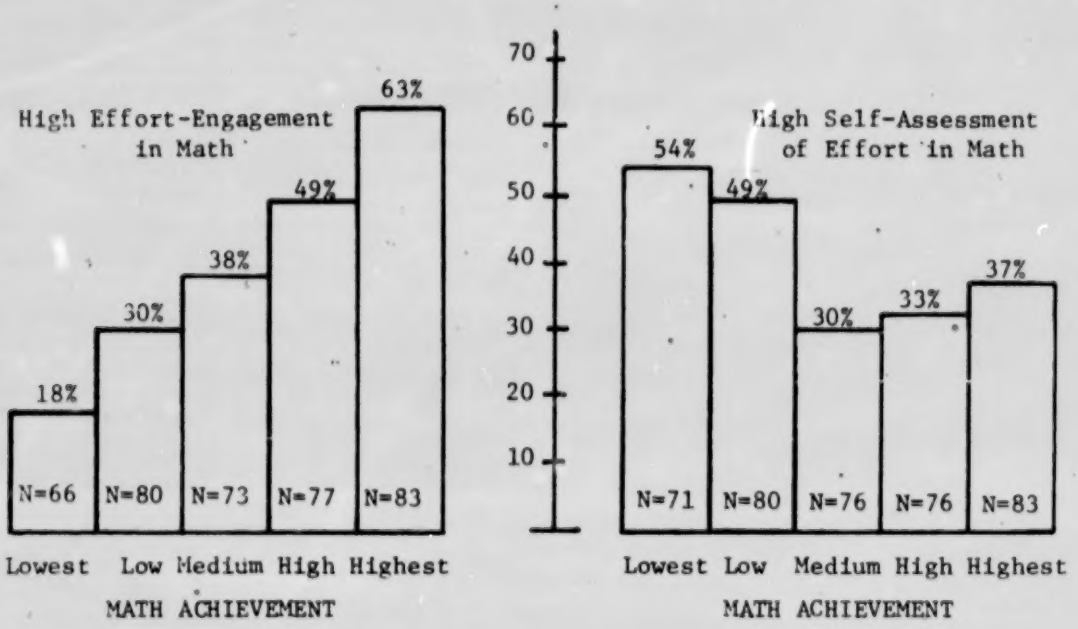
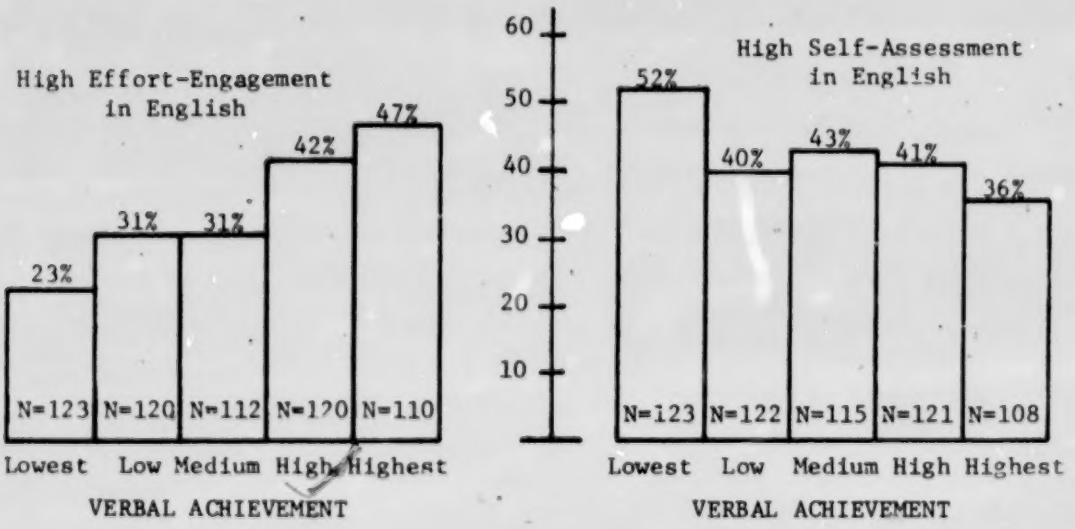


Fig. 2. Percentage of all students high on effort-engagement and self-assessment of effort at different levels of tenth-grade verbal achievement.



It is hard to develop appropriate academic standards for students with low levels of skill at entrance. One would expect a major problem to be the assignment of work that is beyond the level of student preparation. But we found another problem--that Chicano and Black students often received assignments that were not sufficiently challenging. Students who were lowest on achievement scores were most likely to report that the work assigned was "just right" for them (Table 13). This finding is underlined by the tendency for more of the high-achieving students to report that the assigned work was too difficult, compared to the low-achieving students. The standards used by the schools for low-achieving students seem to be insufficiently challenging.

TABLE 13

Proportion of Students Reporting Schoolwork as Just Right (Usually or Always), by Achievement Level for Each Subject

	Level of Achievement									
Subject	Lowest	(N)	Low	(N)	Medium	(N)	High	(N)	Highest	(N)
Math	.68	(76)	.33	(88)	.19	(84)	.21	(87)	.16	(98)
English	.55	(88)	.38	(90)	.37	(78)	.26	(87)	.22	(96)
Social Studies	.52	(84)	.34	(89)	.25	(74)	.21	(88)	.19	(95)

Chicano and Black students did receive lower grades than Other Whites and Asians (Table 14), but this fact does not necessarily imply challenging academic standards. Our data indicate that low grades tended to be assigned to students who cut school frequently. Those who came to class and gave minimal effort were not likely to get low grades.

TABLE 14

Proportion of Students Receiving High and Low Grades, by Subject and Ethnicity

Subject	Ethnicity	High Grades A+ through B-	Low Grades D+ through F
Math	Spanish Surname	.33	.36
	Other White	.38	.30
	Black	.18	.53
	Asian	.53	.28
English	Spanish Surname	.38	.37
	Other White	.57	.18
	Black	.28	.45
	Asian	.62	.11
Social Studies	Spanish Surname	.43	.22
	Other White	.58	.18
	Black	.26	.45
	Asian	.74	.07

Students did not consider evaluations very soundly based (Dornbusch and Scott, 1975), although they were not extremely negative in their appraisals of teachers as evaluators. About one-fourth of the students in each subject reported that good work did not usually result in good grades, and that working hard did not usually produce good grades. But for poor work or little effort, more students attacked the soundness of evaluations. About half of the students believed they would not usually get poor grades if they did poor work or did not try. Teachers were viewed as rewarding with good grades more than evaluating negatively those student performances that did not come up to standard; they used the carrot rather than the stick. We are not recommending increasing the use of low grades, but merely noting that the students we studied did not believe they would receive negative evaluations for poor work or low effort. The students did not feel that grades operated as mechanisms of control to force greater effort.

We also found that teachers did not communicate high expectations for effort to many students. As expected, students who reported that they spent many hours on homework almost always reported that they did their assignments. But students who did 15 minutes or less of homework per week in a subject were just about as likely to say that they usually did their assignments as that they usually did not do them. Students who did not do much homework often believed that they were putting out an appropriate amount of effort. High standards for effort were not being communicated.

Teacher Warmth and Praise

The way teachers behave and the way students view their teachers do affect the level of student effort. If teachers are perceived as warm and friendly, students in their classes work a little harder. Thus warmth and friendliness from teachers can operate to motivate students who begin at a lower level of skill.

We developed a Guttman scale of diffuse responsiveness to measure the students' perception of teacher warmth and friendliness. Table 15 presents the proportion of students in each ethnic group who perceived their teachers as friendly, warm, and personally interested in them. Chicanos and Blacks, the ethnic groups who were doing less well in school, saw teachers as more friendly and warm than did the other ethnic groups. Most teachers are "Anglos," yet Other White students (and Asian students) perceived teachers as less friendly and warm.

TABLE 15

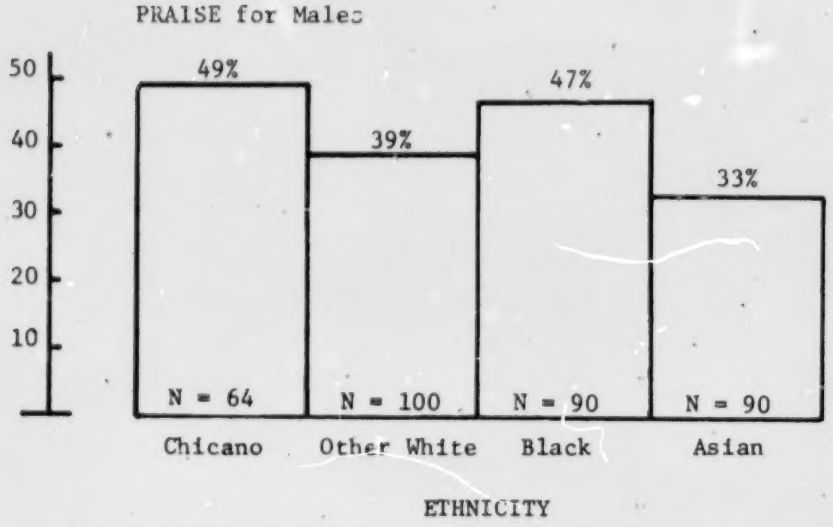
Proportion of Students Seeing Teachers as High in Diffuse Responsiveness, by Subject, Sex, and Ethnicity

Subject	Sex	Spanish Surname	(N)	Other White	(N)	Black	(N)	Asian	(N)
Math	M	.34	(64)	.18	(98)	.27	(85)	.18	(90)
	F	.16	(62)	.10	(102)	.23	(90)	.05	(92)
English	M	.42	(64)	.35	(98)	.38	(87)	.33	(88)
	F	.33	(67)	.38	(104)	.39	(90)	.30	(92)
Social Studies	M	.45	(62)	.26	(97)	.41	(83)	.35	(87)
	F	.23	(65)	.33	(102)	.30	(90)	.22	(90)
Vocational/ Business	M	.55	(53)	.23	(65)	.33	(66)	.36	(59)
	F	.29	(58)	.38	(72)	.42	(77)	.30	(71)

In recent years there has been much concern about teacher warmth (Baratz and Baratz, 1970). Educators have emphasized the importance of teachers being friendly with their students. It is assumed that if the teacher is warm, students will put out more effort. Our data support this hypothesis, at least to the extent that students <u>believe</u> they put out more effort, but to maximize effort, warmth alone is not enough; it should be accompanied by academic responsiveness and challenging standards. That is, although diffuse responsiveness of teachers produced greater effort by students within each ethnic group, we are not implying that interpersonal relationships alone can do the whole job without accompanying standards to challenge the students. In general, for Chicano and all other students we found a positive relationship between diffuse responsiveness and both measures of effort (self-assessment and effort-engagement). But the power of diffuse responsiveness to affect effort-engagement was lower for Chicano students than for any other ethnic group, averaging only a gamma of .16.

We measured the amount of praise that students reported receiving from their teachers (Figures 3-5). A higher percentage of Chicano and

Fig. 3. Percentage of students reporting that they usually or always received academic praise in math classes, by sex and ethnicity.



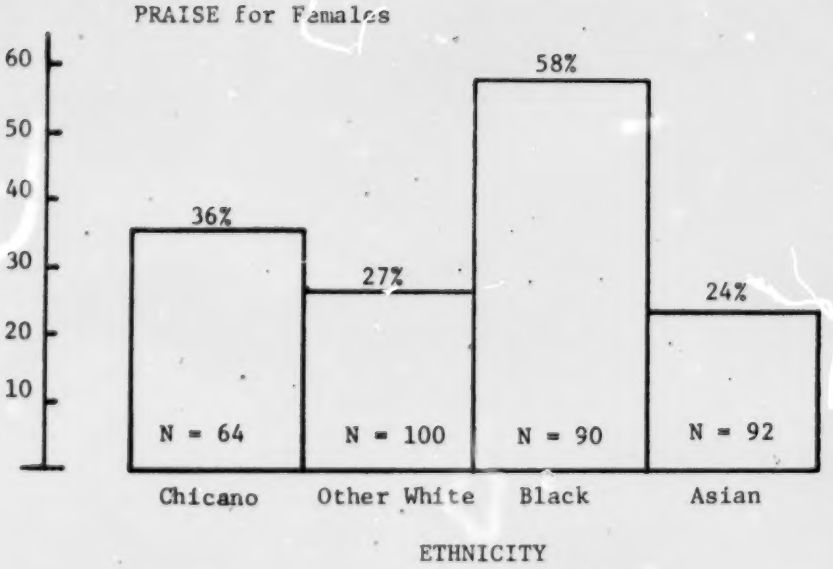


Fig. 4. Percentage of all students reporting that they usually or always received academic praise, by high school math achievement scores.

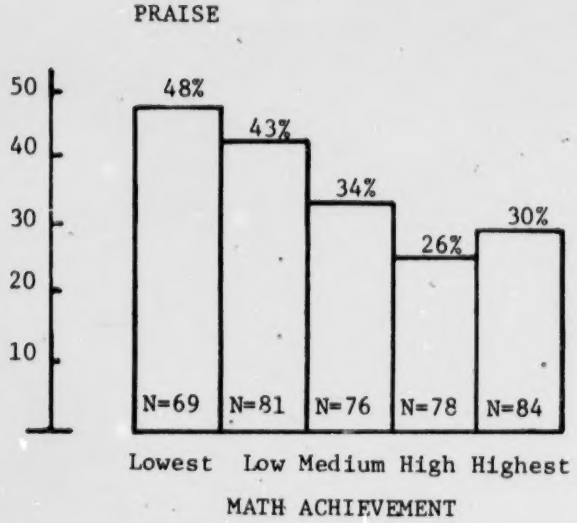
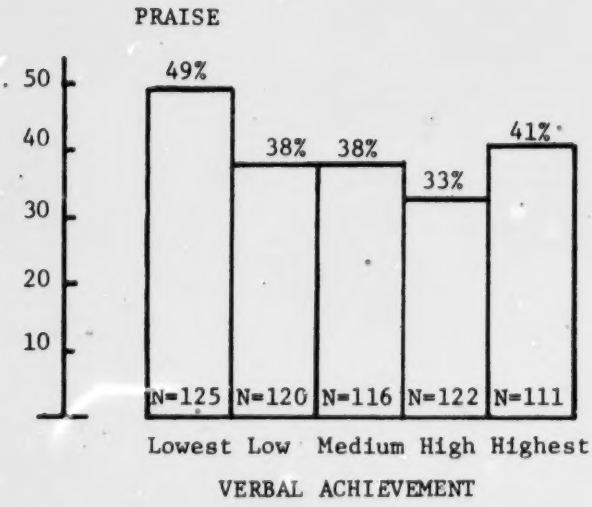


Fig. 5. Percentage of all students reporting that they usually or always received academic praise, by high school verbal achievement scores.



Black students reported that they received praise compared to Other White and Asian students (see Figure 3). As we noted earlier, Chicano and Black students were the two groups with the lowest achievement levels, yet they were receiving the most academic praise. For example, 48 percent of the students lowest in math achievement scores reported that they usually or always received teacher praise, compared to 30 percent of the highest achieving group (see Figure 4).

These findings on the reported frequency of praise buttress our concern about the standards applied to Chicanos and others who enter school at a lower level of achievement. Just as greater warmth and friendliness were perceived by students who were not doing well, so these same students said they were receiving more praise. Such friendliness and praise were also more frequently reported in the four schools whose average scores on standardized achievement tests were lowest and were seen as less common in the four schools with higher average achievement scores.

We believe that friendliness, warmth, and praise from teachers may help maintain order and motivate students in those classroom environments in which low achievement is common. The diffuse relationship between teacher and student may be used as a substitute for universal academic standards in the classroom. Most importantly, we found that teacher praise and diffuse responsiveness were not effectively working to change levels of achievement for Chicano students.

Frequency of praise made little difference in effort-engagement in Math for students whose achievement level was average or low. Only for students high in math achievement scores was there a positive relation between the frequency of positive teacher feedback in math and the effort-engagement level. Thus, the effort-engagement of students with high achievement scores was more affected by praise from teachers than was effort by medium or low-achieving students.

For English, we again found a positive relationship between teacher praise and student effort-engagement, controlling this time for high school verbal achievement. The data were less consistent than for Math, but, in general, effort by low-achieving students was again

less affected by praise than was the effort of students higher in achievement. For Social Studies, we again found that praise was less related to effort-engagement for the low-achieving students.

What we have found concerning praise from teachers has a direct bearing on our central argument concerning the bases for faulty self-assessment of effort among Chicanos and other groups with low achievement scores. Praise has the least impact on the effort-engagement level of those groups for whom it is most often employed as a technique of control. Here is one form of difficulty as teachers seek to motivate students who enter high school at a low level of preparation.

But praise has another effect. According to the multiple regression analysis, the frequency of praise reported by students is, for all groups, much more associated with high self-assessment of effort than with effort-engagement. Upon reflection, it is not surprising that receiving praise for work that is not very creditable leads to distorted images of the level of effort and achievement each student believes he or she is putting forth.

Summary and Implications

We have shown that the Chicano students we studied cared about their schooling. They were supported in their view of school as important by the views of their families and other persons who mattered to them. In addition, Chicanos believed that there was a close link between schooling and the world of work, and this perceived link made schooling more important to them.

But Chicano performance in school did not fit this image of students who cared deeply about schooling. What went wrong? We believe that teachers have emphasized warmth and praise in their handling of Chicano students, and that the result has been a faulty evaluation system which leads to self-delusion by these students.

Our findings are not the first to note that students need challenging standards as well as interpersonal warmth. Rosenthal and Jacobson (1968), McKeachie (1969), Brophy and Good (1970), Rist (1970), Finn (1972),

Kleinfeld (1972), Nash (1973), Brophy (1975), and Evertson (1975) have all been concerned with this problem of teacher attitudes and expectations. We have gone beyond the existing literature by examining the standards applied in a large number and variety of classrooms, and we have shown how those standards can affect student effort in ways that preserve the existing structure of inequality. The false images of their academic skills and effort held by Chicanos reinforces a pattern of educational and occupational stratification. Chicanos are allowed to believe that they are exerting an appropriate level of effort when they are not doing the kind of work required to achieve their future goals.

A first emotional response to this report might be to blame the teachers. But we do not blame them. The teachers in this school system are trying to be responsive to the Chicano students. We must remember that high school students arrive with an educational history. The high schools are part of a larger social system. They are not isolated units, and they reflect the larger social structure. The schools and the larger society accept and expect the lower level of Chicano school achievement. We are reporting a new pattern of institutional discrimination in which the agents of discrimination, the teachers, are warm and positive in their relations with their students, and the students are deceived about their current position and their destiny.

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